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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------------|
| 10/806,868 | 03/23/2004 | Mark S. Schaefer | GP-304231 (2760/149) | 2697 |
| 7590 10/19/2007 General Motors Corporation Legal Staff, Mail Code 482-C23-B21 300 Renaissance Center P.O. Box 300 Detroit, MI 48265-3000 | | | EXAMINER VO, TED T | |
| | | | ART UNIT 2191 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/806,868 | Applicant(s) SCHAEFER, MARK S. | |
| | Examiner Ted T. Vo | Art Unit 2191 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the communication filed on 08/03/2007.

Newly amended Claims 28-48 are pending.

Response to Arguments

2. Arguments filed in Remarks on 08/03/2007 are moot in view of new ground of rejections. The claims direct to software updating in a device from a central station. It should be noted that such updating is common in the art. A server computer is already available for doing this task. A central station in the claim that stores versioning software acts like a software update server. Every portable device having downloaded software and memory, such as a computer laptop, Mobil phone, or car- roadmap, is easy put in a car. Identifying a version is simply managed by its software manufactory by providing a version number to software, for example; Microsoft IE 6.0, IE 7.0, etc. Configuration data is always associated with software application to a certain device. Determining software with updated version in the claims for whether it is compatible or not is solely based on reading software information. Updating software in the claims recites solely the definition of software update, i.e. loading the updated version of software into a device over its old version. All these are common in the art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application

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filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 28-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Kincaid, Pub No. US 2004/0117785 A1, filing on 12/2002.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per claim 28: regarding,

A method for managing (using DLM) a software configuration update of a vehicle, the method comprising the steps of:

identifying an updated version of a first software module for a first electronic module on the vehicle; (See [0008]: "a version identifier", [0011]: component/newer components/current versions, where these components are stored in a remote server [0050]);

obtaining vehicle configuration data ([0037] or a list of files/version identifier, etc.) representative of a current software configuration on the vehicle (FIGURE 2: #260, and [008]: "received software files"), ***wherein the vehicle configuration data includes the versions of software modules currently installed in electronic modules connected to the vehicle telematics unit over a vehicle communication bus, and the vehicle configuration data identifies interdependencies between the software modules*** (See Figure 3, and FIGURE 4, refer to "INTERDEPENDENT");

determining whether the updated version of the first software module is compatible with the current software configuration (See [0052]: "compares the list...". See Figure 4: 410/425, the DLM Manager compares received data with current versions) ***and***

updating the first software module with the updated version by transferring the updated version

([008]: "Software files") of the first software module from the vehicle telematics unit (either

transceiver 210 or mobile station) ***to memory (#260) of the first electronic module (#263) via the***

communication bus (wire/interconnection of #111) ***if it is determined that the updated version of the first software module is compatible with the current software configuration*** (See Figure 4.

"Replaces old versions"; See [0052]).

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As per claim 29: regarding,

The method of claim 28, wherein the obtaining step further comprises retrieving the vehicle configuration data ([0037] and see FIGURE 2, #260, and FIGURE 3, #263) from a call center ('Software update server') and the determining step further comprises determining at the call center whether the updated version of the first software module is compatible with the current software configuration. (e.g. the communication in FIGURE 1 described in FIGURE 2, or 0037; see [0044]).

As per claim 30: regarding,

The method of claim 28, wherein the obtaining step further comprises obtaining the versions of the software modules currently installed in one or more electronic modules connected to the vehicle telematics unit (i.e. downing software files as noted) over a vehicle communication bus by interrogating the one or more electronic modules via the vehicle telematics unit. (See Figure 3, and FIGURE 4, and further see FIGURE 2, the wired complexity connected to main processor for downloading the software files);

As per claim 31: regarding,

The method of claim 30, further comprising the step of: providing the obtained versions of the software modules currently installed to the call center (See FIGURE 4, i.e. downloaded versions from software update server); and wherein the determining step further comprises determining at the call center whether the updated version of the first software module is compatible with the current software configuration. (See FIGURE 4, and [0052]; the remote server provides the list of files and version identifiers, where the DLM uses this information for how to replace the old version).

As per claim 32: regarding,

The method of claim 30, wherein the obtaining step further comprises obtaining the interdependencies between the software modules from the call center (i.e. information and software sent by remote sever contain the interdependencies of software, so that the DLM know how to replace the old version), and the determining step further comprises determining at the vehicle telematics

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unit whether the updated version of the first software module is compatible with the current software configuration (See Figure 4).

As per claim 33: regarding,

The method of claim 28, wherein, if it is determined that the updated version of the first software module is not compatible with the current software configuration (It is inherent in "comparing", where the comparing step in the reference provides the differences between new one and old one so that it can replace the old one), ***then the method further comprises the step of replacing at least one of the other interdependent software modules with a version of the at least one other interdependent software module that is compatible with the updated version of the first software module*** (See Figure 4, refer to the task of DLM).

As per claim 34: regarding,

The method of claim 33, further comprising the steps of:
determining which of the other interdependent software modules conflicts with the updated version of the first software module; and determining whether the conflicting software modules have a version available that is compatible with the updated version of the first software module.
(See Figure 4, refer to the task of DLM).

As per claim 35: regarding,

The method of claim 27, further comprising the step of issuing a software request to the call center for the updated version of the first software module ([0009]).

As per claim 36: regarding, ***A method for managing a software configuration update of a vehicle, the method comprising the steps of:***

identifying an updated version of a first software module available for installation in a first electronic module on the vehicle, wherein a previous version of the first software module is installed in the first electronic module on the vehicle;
obtaining the versions of one or more other software modules installed in one or more electronic modules on the vehicle; identifying interdependencies between the updated version of the first software module and the one or more other software modules;

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determining at the call center whether the updated version of the first software module is compatible with the obtained versions of the one or more other installed software modules; and updating the first software module by transferring the updated version of the first software module from a vehicle telematics unit to the first electronic module via a communication bus if it is determined that the updated version of the first software module is compatible with the obtained versions of the one or more other installed software modules.

Functionality of the claim is the same as of Claim 28: See rationale addressed in the claim 28.

As per claim 37: regarding, **The method of claim 36, wherein the step of identifying interdependencies (FIGURE 4) further comprises retrieving vehicle configuration data from the call center ([0037]), wherein the vehicle configuration data identifies interdependencies between the updated version of the first software module and one or more other software modules installed in the one or more electronic modules on the vehicle.**

Functionality of the claim is the same as of Claim 29: See rationale addressed in the claim 29.

As per claim 38: regarding, **The method of claim 36, wherein the obtaining step further comprises obtaining the versions of the one or more other software modules by interrogating one or more electronic modules installed with the one or more other software modules; and wherein the electronic modules are interrogated by the vehicle telematics unit over the vehicle communications bus for the versions of the one or more other software modules installed in the one or more electronic modules.**

Functionality of the claim is the same as of Claim 30: See rationale addressed in the claim 30.

As per claim 39: regarding, **The method of claim 36, wherein the identifying interdependencies step further comprises identifying, at the call center, interdependencies between the updated version of the first software module and one or more other software modules installed in one or more of the electronic modules.** See FIGURE 4

As per claim 40: regarding, **The method of claim 36, wherein, if it is determined that the updated version of the first software module is not compatible with the obtained versions of the one or more other installed software modules, then the method further comprises the step of replacing at**

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least one of the other installed software modules with a version of the at least one other installed software module that is compatible with the updated version of the first software module.

Functionality of the claim is the same as of Claim 33: See rationale addressed in the claim 33.

As per claim 41: regarding, ***The method of claim 40, further comprising the steps of:***

determining which of the obtained versions of the one or more other installed software modules conflicts with the updated version of the first software module; and

determining whether the conflicting software modules have a version available that is compatible with the updated version of the first software module.

Functionality of the claim is the same as of Claim 34: See rationale addressed in the claim 34.

As per claim 42: regarding, ***The method of claim 36, wherein the step of identifying an updated***

version further comprises receiving a notification (refer to the means of internet accessibility, voice data, email, conventional triggering event, receipt of notification message, etc, in [0044]) ***at the vehicle telematics unit from the call center that the updated version of the first software module is***

available for installation in the first electronic module on the vehicle (See [0008]: "a version identifier", [0011]: component/newer components/current versions, where these components are stored in a remote server [0050]);

As per claim 43: regarding, ***The method of claim 36, wherein the step of identifying an updated version further comprises issuing a software request for each software module installed in the one or more electronic modules on the vehicle on a periodic basis and determining whether the latest versions of the software modules are installed on the vehicle*** ([0009], FIGURE 4).

As per claim 44: regarding, ***A method for managing a software configuration update of a vehicle, the method comprising the steps of:***

detecting at a vehicle telematics unit that a software module in an electronic module has been modified;

determining whether the modified software module is compatible with versions of other software modules currently installed on the vehicle, wherein the other software modules have interdependencies with the modified software module; and

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if the modified software module is not determined to be compatible with the other interdependent software modules, replacing the version of at least one of the interdependent software modules so that the interdependent software modules are compatible with one another.

This claim is broaden version of Claim 28: See rationale addressed in the rejection of claim 28.

As per claims 45-48: See rationale addressed in the rejection of claims 29-35.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

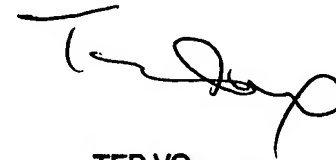
The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may

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be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV
October 12, 2007

A handwritten signature in black ink, appearing to read 'Ted Vo', is written above the printed name.

TED VO
PRIMARY EXAMINER